

## 14 pin DIL VCXO

- Frequency range 60MHz to 240MHz
- LVPECL Output
- Supply Voltage 3.3 VDC
- Phase jitter 0.2ps typical
- Pull range from  $\pm 30\text{ppm}$  to  $\pm 150\text{ppm}$

### DESCRIPTION

GPA14 VCXOs are packaged in a 14 pin dual-in-line package. Typical phase jitter for GPA series VCXOs is 0.2 ps. Output is LVPECL. Applications include phase lock loop, SONET/ATM, set-top boxes, MPEG, audio/video modulation, video game consoles and HDTV.

### SPECIFICATION

Frequency Range:	60.0MHz to 240.0MHz
Supply Voltage:	3.3 VDC $\pm 5\%$
Output Logic:	LVPECL
RMS Period Jitter	
60.0MHz ~ 120MHz:	2.5ps typical
120MHz ~ 240MHz:	4.7ps typical
Peak to Peak Jitter	
60.0MHz ~ 120MHz:	17.5ps typical
120MHz ~ 240MHz:	24.5ps typical
Phase Jitter:	0.2ps typical
Initial Frequency Accuracy:	Tune to the nominal frequency with $V_c = 1.65 \pm 0.2\text{VDC}$
Output Voltage HIGH (1):	Vdd-1.025V minimum Vdd-0.880V maximum
Output Voltage LOW (0):	Vdd-1.810V minimum Vdd-1.620V maximum ( $R_L = 50\Omega$ to Vdd-2V)
Pulling Range:	From $\pm 30\text{ppm}$ to $\pm 150\text{ppm}$
Control Voltage Range:	$1.65 \pm 0.35$ Volts
Temperature Stability:	See table
Output Load:	$50\Omega$ into Vdd or Thevenin equiv.
Rise/Fall Times:	0.5ns typ., 0.7ns max. 20% Vdd to 80% Vdd
Duty Cycle:	50% $\pm 5\%$ (Measured at Vdd-1.3V)
Start-up Time:	10ms maximum, 5ms typical
Current Consumption:	75mA maximum at 212.5MHz 80mA maximum at 622.08MHz
Static Discharge Protection:	2kV maximum
Storage Temperature:	$-55^\circ$ to $+150^\circ\text{C}$
Ageing:	$\pm 2\text{ppm}$ per year maximum
Enable/Disable:	Not implemented - 4 pin package
RoHS Status:	Fully compliant or non-compliant

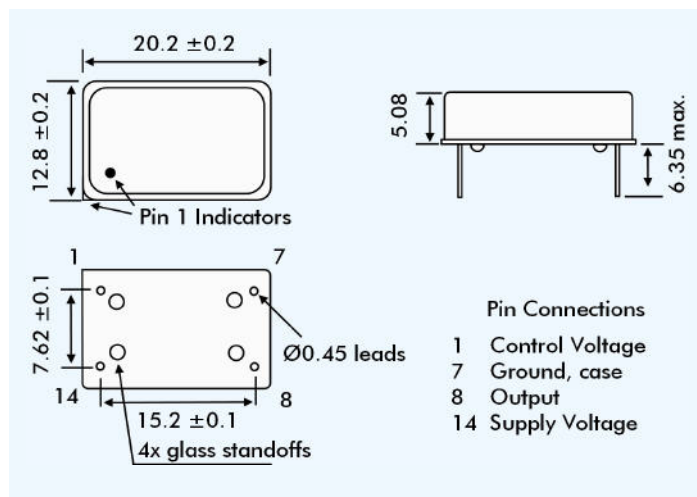
### FREQUENCY STABILITY

Stability Code	Stability $\pm\text{ppm}$	Temp. Range
A	25	$0^\circ \sim +70^\circ\text{C}$
B	50	$0^\circ \sim +70^\circ\text{C}$
C	100	$0^\circ \sim +70^\circ\text{C}$
D	25	$-40^\circ \sim +85^\circ\text{C}$
E	50	$-40^\circ \sim +85^\circ\text{C}$
F	100	$-40^\circ \sim +85^\circ\text{C}$

If non-standard frequency stability is required  
Use 'I' followed by stability, i.e. I20 for  $\pm 20\text{ppm}$



### OUTLINE & DIMENSIONS



### PART NUMBERING

